

App. No. 10/553088
Advisory Action Dated April 30, 2008

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REMARKS

Favorable reconsideration is respectfully requested in view of the above amendments and following remarks. Claim 1 has been amended. The limitation in claim concerning the kneading temperature is supported for example by page 22, line 30 to page 23, line 3. No new matter has been added. Claims 1-13 and 15-25 are pending.

Claim rejections - 35 U.S.C. § 103

Claims 1-13, 15-18, 22 and 25 are rejected as being unpatentable over JP 2003-213112 (Otomo) in view of U.S. Patent No. 5,112,903 (Sakakibara). Applicants respectfully traverse the rejection.

Claim 1 requires the kneading to be conducted at a temperature ranging from 260°C to 310°C while moisture is added into the raw material composition. When the kneading is conducted as required by claim 1, a resin composition that has both favorable moldability and superior mechanical properties can be obtained.

Otomo clearly identifies the problem in paragraph [0003] as the presence of moisture when manufacturing a resin composition by kneading a raw material composition containing PET. The reference notes in particular that the presence of moisture leads to a hydrolysis reaction of PET during processing into pellets through thermal melting, thereby causing degradation in physical properties. As described in paragraph [0056], Otomo's approach is to knead the raw material composition containing PET at a temperature lower than the melting point of PET, that is, at a temperature lower than 260°C. Otomo reasons that at such a temperature, the PET can remain in the solid phase such that hydrolysis is suppressed, and yet retain favorable moldability of the resin composition (see paragraph [0017] of Otomo).

To confirm this notion, Otomo conducts kneading at a temperature at 280 °C, i.e., a temperature higher than the melting point of PET (see paragraph [0057] of Otomo). In paragraph [0058], Otomo clearly indicates that when the kneading temperature is set above the melting point of PET, the melt velocity and the extrusion molding properties decrease as a result of the hydrolysis reaction of the PET. As such, Otomo clearly teaches away from kneading at a temperature ranging from 260°C to 310°C as required by claim 1. Sakakibara does not remedy the deficiencies of Otomo. Accordingly, claim 1 and the dependent claims therefrom are patentable over Otomo and Sakakibara, taken alone or separately.

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Claims 1-13, 15-18, 22 and 25 are rejected as being unpatentable over Sakakibara in view of Otomo. Applicants respectfully traverse the rejection.

Otomo teaches in paragraph [0003] that when using PET, the presence of moisture is what actually causes the hydrolysis of PET, thereby leading to the degradation in physical properties. On the other hand, Sakakibara teaches that in the presence of moisture, the moisture shrinkable resin used by Sakakibara absorbs moisture and experiences little decrease in tensile strength during shrinkage by moisture. As such, contrary to the rejection's assertion, it is abundantly clear that the resins used in the two references are not functioning in such a way in the presence of moisture that their interchange from one system to the other would represent a predictable application of the known function of the resins. Moreover, Otomo specifically teaches against the combination of the references. In addition, Otomo clearly teaches away from kneading at a temperature ranging from 260°C to 310°C as required by claim 1. Accordingly, Applicants respectfully submit that claim 1 and the dependent claims therefrom are patentable over Sakakibara and Otomo.

Claims 19, 21, 23 and 24 are rejected as being unpatentable over Otomo and Sakakibara or Sakakibara and Otomo in view of JP 2000-052408 (Taguchi). Applicants respectfully traverse the rejection.

Claim 1 has been distinguished above from Otomo and Sakakibara. Claims 19, 21, 23 and 24 depend from claim 1, and are distinguishable over the references for at least the same reasons. Taguchi does not cure the deficiencies of Otomo and Sakakibara. Therefore, claims 19, 21, 23 and 24 are patentable over Otomo, Sakakibara and Taguchi, taken alone or separately. Applicants do not concede the correctness of the rejection.

Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Claim 20 is rejected as being unpatentable over Otomo and Sakakibara or Sakakibara and Otomo in view of JP 2004-195685 (Masadu). Applicants respectfully traverse the rejection.

Claim 1 has been distinguished above from Otomo and Sakakibara. Claim 20 depends from claim 1, and are distinguishable over the references for at least the same reasons. Masadu does not cure the deficiencies of Otomo and Sakakibara. Therefore, claim 20 is patentable over Otomo, Sakakibara and Masadu, taken alone or separately. Applicants do not concede the correctness of the rejection.

Favorable reconsideration and withdrawal of the rejection are respectfully requested.

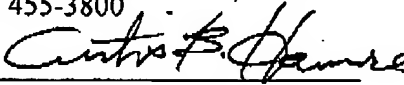
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In view of the foregoing, favorable reconsideration in the form of a notice of allowance is requested. Any questions or concerns regarding this communication can be directed to the attorney-of-record, Douglas P. Mueller, Reg. No. 30,300, at (612) 455.3804.

Respectfully submitted,

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Dated: May 21, 2008

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